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ABSTRACT

This report of the Oregon Special Education Technology Task Force presents recommendations reflecting both the demands expected early in the coming century for students with disabilities and corresponding advances in technology. It encompasses four broad areas: administration; professional development; children, youth, and their families; and resources. Recommendations include: (1) interface with school reform to assure the inclusion of students with disabilities at all levels; (2) provide districts with clear information about their legal responsibilities concerning technology for children and youth with disabilities; (3) provide special education professionals and paraprofessionals with ongoing opportunities for growth in the areas of technology and use of technology with students with disabilities; (4) facilitate training for professionals and paraprofessionals in the pedagogy of teaching students and colleagues to use technology; (5) work to develop teacher standards for earning a technology endorsement; (6) work to infuse technology and curricula regarding assistive technology into existing courses for special education professionals; (7) ensure that accessible and local information and training opportunities are available to students and families; (8) encourage the involvement of students and families in the decision-making process when assistive technology options are being considered; and (9) identify and facilitate additional funding sources that may be available for school districts and programs. (Contains 11 resources.) (CR)

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May 20, 1996

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The Oregon Special Education Technology Task Force

Recommendations for the 21st Century

1996

developed especially for
Oregon Department of Education
Office of Special Education

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The Oregon Special Education Technology Task Force

Recommendations for the 21st Century

1996

developed especially for
Oregon Department of Education
Office of Special Education

Petrea Hagen-Gilden
Associate Superintendent

This document was developed jointly by the Oregon Department of Education, Special Education Technology Task Force, Salem, Oregon, and the Western Regional Resource Center, Eugene, Oregon, pursuant to Cooperative Agreement Number H028-A30003 with the U.S. Department of Education, Office of Special Education and Rehabilitative Services. However, the opinions expressed herein do not necessarily reflect the position or policy of the U.S. Department of Education. Nor does mention of tradenames, commercial products, or organizations imply endorsement by the U.S. Government. [TAA#1 OR TECH]

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ACKNOWLEDGMENTS

The Oregon Special Education Technology Task Force recommendations resulted from a decade of insightful and beneficial work by dedicated special educators. These recommendations represent the culminating project of a task force charged with advising the Oregon Department of Education's Office of Special Education. Much of the task force history is captured in a document entitled "The State of the State: Special Education and Technology in Oregon" written in 1990 by Diane Fentress-Rowe and Ellen Thompson-Green. For the purposes of the present document it is important to recognize the key players. This document exemplifies their commitment to high standards and bold movement into the next century.

A visionary and talented group of professionals launched the task force in 1983. Bob Siewert, Education Specialist with the Oregon Department of Education formed, and facilitated the original group. Present and past members are listed below.

Current Members:

Carol Berger	Chris Brantley	Larry Brown (chair)
Bob Disher	Carol Knobbe	Mary Edwards
Steve Summers	Max McBurnett	Susan McNaught
Lynne Anderson-Inman	Bonnie Stabler	Robert Scheffel

Past Members:

Barbara Allen	Keith Brown	Rosemary Brown
Linda Carnine	Ernie Cristler	Dawn Dauble
Jori (Gibson) Ellis	Kathy Emerson	DiAnne Fentress-Rowe
Dan McAuley	Nick Nicassio	Dalton Plunkett
Penny Reed	Paul Rickerson	Bev Sali-Proulx
Larry Seachris	Roger Smith	Ellen Thompson-Green
Peter Wigmore	Shirley Coale	

ODE Representatives:

Patricia Almond	Gayl Bowser	Tom Cook
Don Erickson	Petrea Hagen-Gilden	Kathryn Hansen
Patricia Jackson	Scott Perry	Sandra Peterson
Jim Sanner	Bob Siewert	

Ad hoc Advisors:

Patti Zembrosky Barkin	Bruce Bull	Maureen Casey
Lila Kuykendall	Dick Olson	Elisa Slee
Don Springer		

Bob Siewert deserves special appreciation for his original vision and foresight in launching the task force in 1983. In addition, the Western Regional Resource Center (WRRC) worked energetically over the final twelve months of the "recommendations" project to ensure that a final version with a thorough field review reached the printer. We would like to give a heartfelt thanks to all the field reviewers who assisted us in refining the final draft of the recommendations. Finally, we would like to acknowledge the many hours that Patti Zembrosky Barkin of the WRRC contributed as she monitored time lines and helped us move the project forward. Her valuable guidance allowed the task force to meet the target completion date.

May 7, 1996

Larry Brown, Chair
Special Education Technology Task Force
c/o Patricia Almond
Oregon Department of Education
225 Capitol Street NE
Salem, OR 97310-0203

Dear Mr. Brown and The Special Education Task Force,

After reading The Oregon Special Education Task Force Recommendations for the 21st Century, I want to say the committee did an outstanding job addressing the issues facing schools, school districts, and families in the area of utilizing technology to assist students with disabilities. As an Elementary Principal and Chair of the State Advisory Council for Special Education, I need to relay to you the work you have done is visionary and will assist schools as we move into the future. Additionally, I want to complement the committee on your written document. It is easy to read and informative. The inclusion of actual case studies makes the recommendations more real for those individuals who may not have a background in educating students with disabilities. By addressing Administration, Professional Development, Children and Families, and Resources, the committee has touched all areas of a student's life.

Everyday I see technology as the key that often opens the door to successful learning for many of our *special* students. There are also times technology makes communication possible between the student with disability and others in a school community. Without technology the quality of lives, education, and relationships would be poor. By providing clear direction in your four focus areas, more children will be successful in school. Addressing school needs based upon what education is to become was very wise. The CIM and CAM are becoming reality and your report gave assistance we have been in those areas.

Professionals will benefit from your recommendations as well as students. It is apparent special educators and special service providers have very little training in the area of technology devices for students with disabilities. By working collaboratively with TSPC and Oregon State System of Higher Education, an impact will be made on the skills of special educators. I would also recommend working with the CSPD Committee under Pat Jackson's direction.

When the State Advisory Council for Special Education meets in June, we will discuss your recommendations and assist in making the recommendations come to fruition. Thank you for all the time and energy you put into this document. You will make a difference in *our students* lives.

Sincerely,

Ronda W. Craemer

Ronda W. Craemer
Chair, State Advisory for Special Education

cc: Pat Jackson
SACSE Members

INTRODUCTION

The Oregon Special Education Technology Task Force (SETTF) presents this set of recommendations to the Oregon Department of Education's Office of Special Education. The task force made a concerted effort to ensure that the recommendations relate to other visionary school agendas including: Oregon's Education Act for the 21st Century, the Office of Special Education's Strategic Plan, and Oregon's Goals 2000 State Plan. The task force also heeded relevant federal legislation including the Individuals with Disabilities Education Act (IDEA), the Americans with Disabilities Act (ADA), and Section 504 of the Rehabilitation Act. We concentrated on references to educational technology and assistive technology contained within these acts. Former Associate Superintendent Karen Brazeau and her successor, Petrea Hagen-Gilden, charged the task force to recommend a direction for the 21st century related to students with disabilities and technology. This document contains their response to the commission.

The recommendations reflect both the demands expected early in the coming century for students with disabilities and corresponding advances in technology. We encompass four broad areas: 1) Administration; 2) Professional Development; 3) Children, Youth, and their Families; and 4) Resources. Following the crafting of the recommendations, the task force solicited input from numerous stakeholders throughout Oregon including two special education advisory groups, the Cooperative Personnel Planning Council (CPPC) and the State Advisory Committee for Special Education (SACSE).

The SETTF recognizes that the vision and recommendations set forth in this document may appear idealistic. However, we believe that it is time to clearly articulate the direction schooling in the state of Oregon must move. Our recommendations describe activities that will enable the local school districts to meet the legal mandates and the educational requirements for children and youth with disabilities. This document presents an aggressive yet attainable vision toward which all segments of Oregon's educational community should move.

HISTORY

The Special Education Technology Task Force (SETTF) was originally established in 1983 as the Special Education Technology Advisory Committee (SETAC). The committee provided leadership to school districts in the effective use of technology; assisted with purchasing equipment; and defined and disseminated best practices in the use of technology within special education. The committee guided a number of activities since its formation including: 1) planning for the implementation of a comprehensive assistive device service delivery system; 2) standardization of the

child census data system; 3) securing the Office of Special Education and Rehabilitative Services (OSERS) funding for the Oregon Technology Access Project (OTAP); and 4) encouraging development of a system to allow school districts to bill the Office of Medical Assistance Programs (OMAP) for medical services provided by school programs.

VISION

The stated purpose of the SETTF has been to advise the Oregon Department of Education Office of Special Education about instructional and administrative uses of technology that would assist students with disabilities in attaining academic, social, civic, vocational, and personal goals. The specific goals of the SETTF have been to: 1) identify promising educational technologies for use with students with disabilities, and 2) identify effective channels of access by Oregon Special Education professionals to promising educational technologies.

In December 1994, the SETTF began an eighteen month project to recommend a direction for technology and for children and youth with disabilities. This set of recommendations for the 21st century fulfills the charge from the Associate Superintendent. The timelines for the project appear below.

Date	Activity
Dec. 1994	Develop vision
Jan. 1995	Form subcommittees
Mar.-May 1955	Develop four areas
June 1955	Work sessions to expand each area
Sept. 1995	Review early draft with OSE teams
Oct.-Dec. 1995	Share with other groups
Jan.-Mar. 1996	Refine & revise recommendations
April 1996	Submit final draft to SACSE & CPPC
May 1996	Submit final document to Associate Superintendent

We began with a vision quest into the year 2005. What would the world look like in the future? The following scenarios are visions of education.

- The traditional school model site for instruction is a thing of the past. We have evolved to a model of lifelong learning. The Internet and interactive television are among the primary resources for learning and are available in all homes in America. A global directory available with every television set indexes libraries, art galleries, research articles and consultants. Adults take classes at home to keep up with changes related to their work.

- People with disabilities have meaningful access to all available technologies. Standards for converting text to Braille, for providing closed captioning on video components, and voice activated interfaces are integrated into WINDOWS 2005!

- Our students' classmates reside in Connecticut, Florida, Guam, France, Brazil, and Oregon and range in age from 8 years to 77 years. Home-schoolers have worldwide connectivity.

- Home-bound children attending public events, school and even church services interactively and during interactive sessions they join a group for discussion and visiting.

- Global conversations via phones with two-way video, voice, fax, graphics, and text are commonplace.

- Special education professionals are self-directed learners. Each teacher acts as a facilitator. Every school and all special education professionals and students have access to local technology trainers and adequate equipment, resources, and time. Increased portability of the technologies revamps need for attendance at a school site. Learning settings include home, community and workplace.

OVERVIEW OF THE SETTF RECOMMENDATIONS

The SETTF organized the recommendations around four major categories. The areas are not in any priority order. All are of equal importance.

1. Administration
2. Professional Development
3. Children and Families
4. Resources

Subcommittees addressed each of these issues, conducted needs assessments, and developed recommendations in the winter and spring of 1995. The following pages contain the recommendations from each subcommittee.

Each section includes an introduction, identification of the problem, a vision statement, and specific recommendations. The boxed scenarios represent stories about Oregon's children and their families. Throughout the document, the phrase "children and youth with disabilities" refers to infants, toddlers, students, children and youth. The term "special education professionals" refers to special education teachers and related services personnel.

OFFICE OF SPECIAL EDUCATION

The Special Education Technology Task Force respectfully offers these recommendations to support students with disabilities into the next century. The breadth of the recommendations may make it difficult to know where to begin. The task force encourages the Office of Special Education to support the recommendations through the following efforts:

- Blend the recommendations into strategic planning efforts.
- Promote professional development recommendations through the Comprehensive System of Personnel Development.
- Incorporate administrative recommendations into Monitoring and Technical Assistance activities.
- Collaborate with parent groups to address recommendations for families.
- Apply resource recommendations for optimal benefit to students.
- Review progress annually.

We look forward to seeing the recommendations become reality in the coming years.

I. RECOMMENDATIONS FOR ADMINISTRATION

I. INTRODUCTION

Under federal and state law all students must have equal access to technology in order to have equal access to education. Under laws such as the Americans with Disabilities Act (ADA), Section 504 of the Rehabilitation Act, and the Individuals with Disabilities Education Act (IDEA) individuals with disabilities have a right to access the same tools for learning as do their non-disabled peers. Assistive technology is also a requirement when tools need modification to accommodate a person's disability.

II. PROBLEM

For every child with special needs, there are two sides of the regulatory issues regarding technology. First, the law requires that children with special needs have the same access to technology for educational activities as other students. Second, students must have the assistive technology they need to benefit from their educational programs. IDEA, Section 504 of the Rehabilitation Act, and the ADA all require that districts provide equal access to technology for their children and youth with disabilities.

A variety of problems arise during the implementation of these laws. Many of these problems are due to the new and rapidly changing nature of technology. The need for clear guidelines from state level agencies has increased. Many districts are not yet aware of their responsibilities in the area of providing technology for children and youth with disabilities. These responsibilities include not only the provision of assistive technology devices, but also assistive technology services such as staff and parent training, repair and maintenance, and assessment services. They also include the equal provision of instructional technology for all children.

Specific problems identified by the working group on administration include the following:

- Lack of awareness of the requirements of civil rights laws such as IDEA, ADA, and Section 504 concerning instructional and assistive technology for children and youth with disabilities.

- No clearly articulated implementation policy or guidelines from the Office of Special Education concerning the instructional and assistive technology mandates.

- Lack of a state requirement for ongoing district planning in the area of technology for students with special needs.

- Lack of awareness of unique student needs and the available technology which might help to meet those needs.

When Erik's family and the school district had a disagreement about Erik's use of technology, Erik's mother called the Office of Special Education, the Oregon Technology Access Program, Coalition in Oregon for Parent Education (COPE), and the Oregon Advocacy Center. Eventually a formal complaint was filed and a ruling from the state level found that Erik's school district was out of compliance with IDEA because the district did not have a way to deal with assistive technology questions when they arose. Part of the district's plan to remedy the problem was the development of a procedure for handling requests for assistive technology and inservice training for the district's special education staff. Three years later, the district staff report increased use of assistive technology by a wide range of students. At the same time, there has been a reduction in the number of conflicts between families and the district.

Other districts in Oregon are now developing an awareness of their legal requirements to provide technology to students with disabilities. Following Eirk's case two other districts used the sample procedures from Erik's school to develop their own district level procedures.

III. VISION

The Special Education Technology Task Force has the following vision for the use of technology for children and youth with disabilities:

- All children and youth with disabilities will have the necessary technology to pursue the Certificate of Initial Mastery (CIM), Certificate of Advanced Mastery (CAM), Individualized Education Plans (IEP/IFSP) goals, or other learning goals in the Least Restrictive Environment.

- All students shall have equal opportunity to produce materials, to access information, and to acquire skills.

IV. RECOMMENDATIONS

In this section, the SETTF advises the Office of Special Education about the area of administration. In meeting the demands of the 21st Century related to technology, students with disabilities, and school improvement, the Office of Special Education is advised to take action on the following recommendations.

A. Interface with school reform to assure the inclusion of children and youth with disabilities at all levels.

- Within the annual CIM and CAM plans update, ask local districts to include a description of the ways in which children and youth with disabilities use technology to achieve CIM and CAM outcomes.

- Within the district comprehensive application, ask local districts to include a description of the ways in which students with special needs access assistive technology devices and services.

B. Provide districts with clear information about their legal responsibilities concerning technology for children and youth with disabilities.

- Develop and implement a plan to ensure a thorough understanding of the impact of legal requirements of Section 504, ADA, and IDEA on technology use by:

  OSE Staff
  LEA Administration
  Direct service staff
  Parents and advocacy groups

- Collaborate with other offices within the Oregon Department of Education to assure that laws related to assistive technology and equal access to instructional technology are fully implemented.

- Provide direct training to special educators and general educators regarding their responsibilities in implementing laws that relate to assistive technology and educational technology by incorporating technology assessment and planning in the IEP/IFSP.

- Ensure that all state recommended curricula that include technology-based materials are accessible to children and youth with disabilities.

C. Local districts adopt policies that ensure appropriate access to technology for children and youth with disabilities.

- Provide a model that districts could use to develop procedures to assure compliance with the State and Federal law and equal access to technology for children and youth with disabilities.
- Include assistive technology questions in special education monitoring activities.
- Include special education technology policies in sample comprehensive plan.
- Recommend and encourage local districts to develop technology plans that include children, youth and staff with disabilities.

D. Review all OSE activities to assure that the technology needs of people with disabilities are addressed.

- Assure that all people with disabilities have access to appropriate levels of connectivity with OSE in written communications, telephone, and electronic communications.
- Assure that all distance learning activities from OSE are accessible to students, special education professionals, and family members with disabilities.
- When requested, promptly provide materials in accessible formats such as large print, text files, or Braille in a prompt manner.

E. Modify Oregon Administrative Rules (OAR) to come into compliance with Federal Regulations, including definitions of assistive technology devices and services.

II. RECOMMENDATIONS FOR PROFESSIONAL DEVELOPMENT

I. INTRODUCTION

The introduction of educational technology and assistive technology tools into the schools has been so rapid that many teachers do not have the skills they need to use new technology tools effectively. Many educators finished professional preparation programs before the advancement of personal computers and many others received no training in the effective use of technology with children. When special education professionals lack basic technology skills they are hampered in meeting the mandates for assistive technology specified in the IDEA, Section 504 of the Rehabilitation Act, and the Americans with Disabilities Act (ADA).

In addition, school reform efforts are changing the way that schools provide instruction. The consideration of new techniques such as electronic portfolio assessments and multimedia CIM and CAM projects requires that special education professionals understand the technologies their students are asked to use. They must be able to adapt the technological environment so that children and youth with disabilities have equal access.

II. PROBLEM

Special education directors report that special education professionals coming out of Oregon universities do not have the required technology skills to effectively use instructional technology tools with their students. In addition, most new special education professionals do not have a basic understanding of the field of assistive technology or of the specific kinds of assistive technology tools that might be of benefit to the children they teach.

Educators already employed in Oregon schools must acquire a basic understanding of technology while they are teaching. They must also have the resources available to help them acquire new skills as the technologies change and as they encounter students with unique assistive technology needs. There is currently not a comprehensive system for providing on-going technology training to those who teach children and youth with disabilities.

Specific problems identified by the working group on Professional Development include the following:

- Lack of skills among many educators to assess the assistive technology needs of their children and youth with disabilities.

- Lack of skills among educators to employ assistive technology for children and youth with disabilities.
- Lack of understanding regarding the best ways to address assistive technology in IEPs.
- Lack of resources available to help educators learn to use technology as an instructional tool.
- Lack of information available to educators on the best ways to teach technology skills to students.

Follow Up report from a teacher who attended an Oregon Technology Access Program (OTAP) training:

"While attending the inservice, I learned about a program which produces the same handwriting fonts used in our school. I purchased the program for Matt, a special needs student in my classroom. Though Matt has limited learning skills, my goal is to include him in as many classroom learning activities as possible. Many subject areas require writing skills which Matt has not acquired. Thus, before I purchased the program, Matt used tracing boards to form one letter at a time or traced letters which I had pre-written with a highlighter pen. The new program makes it possible for me to pre-print words using the 'hollow' manuscript style. Matt's task is to trace the hollow letters as they are dictated.

I also use the program by allowing Matt to sit at a computer and type in letters as they are dictated. He feels so important doing the assignment on his computer and is becoming quite fast at locating the letter keys. He also has learned to look up at the screen to see the printed letter after he has pressed the correct key. Sometimes peers ask Matt to type up and print their handwritten sentences. They celebrate Matt's computer skills!"

III. VISION

The Special Education Technology Task Force has the following vision for educators in Oregon:

- Training and up-to-date information will be available to special education professionals and paraprofessionals on the use of the various technologies and software available for both special education professionals and students.

- Special education professionals and paraprofessionals will graduate from Oregon's community colleges and universities competent in using technology.

- Computer support specialists will be available to educators to release special education professionals from the burden of hardware maintenance and trouble shooting and to provide technical assistance as needed.

- A variety of training opportunities will be available to help all teaching personnel upgrade their technology skills.

IV. RECOMMENDATIONS

In this section, the SETTF advises the Office of Special Education about the area of professional development. In meeting the demands of the 21st Century related to technology, students with disabilities, and school improvement, the Office of Special Education is advised to take action on the following recommendations.

A. Provide special education professionals and paraprofessionals with ongoing opportunities for professional growth in the area of technology and use of technology with children and youth with disabilities.

- Facilitate training for special education professionals and paraprofessionals in the use of technology:
  - for management tasks including IEP/IFSP development and periodic review;
  - for production of assignments and assessments;
  - for on-line acquisition of curriculum ideas and materials;
  - for instructional purposes; and
  - to meet requirements of the Education Reform Act.

- Facilitate training for special education professionals on unique forms of assistive technology when that technology is identified, needed and acquired for one of their students.

- Facilitate training for special education professionals on technology assessment and planning within the IEP/IFSP process.

B. Facilitate training for special education professionals and paraprofessionals in the pedagogy of teaching students and colleagues to use technology.

- Provide training materials (e.g., videos) to improve special education professionals' awareness of what is available.
- Provide sample curricula and examples of student work generated with technology.
- Provide direct training activities in the pedagogy of teaching students and colleagues to use technology.

C. Work in cooperation with the Teacher Standards and Practices Commission (TSPC) to develop a set of standards for earning a technology endorsement in addition to an already existing endorsement. The endorsement should also signify that the educator is competent in the application of technology across educational settings and capable of retraining him/herself as the world of technology changes. The endorsement will require a working knowledge of assistive technology for accommodating children and youth with disabilities.

D. Work with the Oregon State System of Higher Education to infuse technology and curricula regarding assistive technology into existing courses for special education professionals, associate level degree technology specialists, and training for administrators.

III. RECOMMENDATIONS FOR CHILDREN AND FAMILIES

I. INTRODUCTION

For children and youth with disabilities to effectively use assistive technology and educational technology solutions, it is important that all individuals involved in their educational program understand the possibilities and limitations that the technology presents. Many parents are aware that there are a number of technology tools that might benefit their children and are eager to try them. However, research on the reasons why children abandon technology indicates that when families do not have a clear understanding of the technology, it is likely that the child will not adopt the technology. In addition, when parents have a clear understanding of children's right to equal access to technology, they can be better advocates and are less likely to come into conflict with school programs.

II. PROBLEM

The primary problem that arises for children and youth with disabilities and their families is the lack of understanding about the benefits and limitations of the use of assistive technology. The very nature of rapidly changing technologies complicates this problem. In addition, there is a lack of information designed for parents regarding assistive technology devices and service requirements of IDEA, ADA, and Section 504.

Specific problems identified by the working group on Children and Families included the following:

- Lack of understanding by school district staff of the ways families should be included in the assessment and planning process when technology is being considered as a tool for children and youth with disabilities.
- Lack of opportunities for families to participate in training regarding the specific technologies used by their children.
- Lack of understanding on the part of family support systems such as mental health providers, medical providers and advocacy groups as to the responsibilities of school districts to provide technology for students with disabilities.
- Limited availability of technology for home use by children with disabilities and their families.

Sarah is in the fourth grade. She has cerebral palsy and uses a wheelchair. She also has a vision impairment. She uses a computer to do all her written work at school and to participate in other activities that her peers complete using their hands. Sarah's family learned about the ways that she could use a computer and receive computer training as a related service from her support staff. Once her family understood the value of a computer for Sarah, they sought and received funding for her to have a computer at home. Below is a letter from Sarah's mother:

"Having a computer and a printer has been wonderful for Sarah. She has an outlet for her creativity and meaningful activity for her time. Her math and reading have improved. She has several educational computer programs at home which she loves. Sarah also keeps a journal and will be able to look back and see what she did. Her older sisters each have written diaries. Sarah's is on the computer. I think the computer has completely changed Sarah's life. She has a way to communicate to the world, listen to her own writing and explore subjects she could not explore by using books."

III. VISION

The Special Education Technology Task Force has the following vision for children and families:

- Students and families will be informed participants in the assessment and decision making process regarding assistive technology needs for children and youth with disabilities.
- Students will have advocacy skills and be self-advocates with respect to the use of technology so that they may be successful in school.
- Families will have the information and skills they need to help their children and youth with disabilities use technology effectively.

IV. RECOMMENDATIONS

In this section, the SETTF advises the Office of Special Education about the area of children and families. In meeting the demands of the 21st Century related to technology, students with disabilities, and school improvement, the Office of Special Education is advised to take action on the following recommendations.

A. Ensure that accessible and local information and training opportunities are available to students and families.

- Assist districts to develop written information and training opportunities for students and families regarding the rights of children and youth with disabilities to have equal access to technology and assistive technology.

- Assist districts to develop written information and training opportunities to students and families that provide general information about technology for children and youth with disabilities and the importance of self-advocacy for this technology.

- Work with districts and appropriate agencies to assure that they provide families with information and training opportunities centered on specific assistive technology needs identified in their child's IEP/IFSP.

B. Ensure that information and training opportunities are available to support agencies and advocacy groups.

- Work with appropriate agencies to provide information regarding the rights of children with disabilities to have equal access to technology and to assistive technology in school programs.

- Work with appropriate agencies to provide information regarding the limits of the responsibilities of school programs in the provision of assistive technology.

- Support dissemination of general information about technology commonly used in school programs by children and youth with disabilities to support agencies and advocacy groups.

C. Encourage the involvement of students and families in the decision making process when assistive technology options are being considered to support placement in the least restrictive environment.

- Assist early childhood transition teams to adopt procedures which include a review of the child's technology needs for transition into school.

- Assist secondary transition teams to adopt procedures which include a review of the youth's technology needs for transition into adult life.

- Develop procedures for IEP/IFSP teams that include a review of the child's or youth's technology needs when moving from one environment to another.

IV. RECOMMENDATIONS FOR RESOURCES

I. INTRODUCTION

Federal and state laws mandate that children and youth with disabilities must have access to technology in order to benefit from their education. Local education agencies (LEAs) must provide access to technology, appropriate assistive technology, related services, plus repair and maintenance of the technology for students with disabilities "at no cost to parents."

There are thousands of assistive technology solutions available to children with disabilities. The most effective means of assessment for determining the assistive technology needs of children with disabilities is an actual trial period with the device. IDEA requires that assessment be done by individuals knowledgeable about the assessment procedure. In the area of technology use, this requires that a broad range of knowledge regarding assistive technology be available to school districts.

II. PROBLEM

There are, as yet, no funds allocated to help LEAs fulfill this mandate. In addition, technology solutions are relatively new to education. The resources to assess needs, repair and maintain equipment, and provide support to direct service staff are often not available. Each assistive technology user requires assessment, acquisition of equipment, training, maintenance, support services, and related services in order to learn to use technology effectively. This can place enormous burdens on LEAs that may not have the financial or personnel resources to provide the services mandated.

Specific problems identified by the working group on Resources include the following:

- Federal and state mandates require that school districts provide technology and assistive technology to children and youth with disabilities, despite decreased funding available to LEAs.
- Individualized nature of the technology needs of children and youth with disabilities requires LEAs to have a large quantity of information available to them in order to effectively assess the needs.
- LEAs lack trained personnel to complete assessments to determine assistive technology needs.
- There is a lack of equipment available to LEAs to complete assessments.

Juan is a high school student. He has severe learning disabilities and a great deal of trouble completing written work. Despite these difficulties, he aspired to be on the staff of the school newspaper and to go to college to be a writer.

Juan's education team could see that he was a much better writer when he had access to a computer. As a result, the school provided one for his use in any class where writing was a major activity. During his first semester with full access to a computer, Juan made the school honor roll for the first time in his life. During his second semester with full access to a computer, Juan won a local writing competition. Juan will attend college at the University of Oregon. Because he demonstrated how much difference a computer makes in his life, his vocational rehabilitation counselor agreed to purchase one for him to take to college. Below is an excerpt from a letter Juan wrote to his school program.

"I have now been using a computer for several years. I cannot begin to tell you what an important tool it is to me. I am an A and B student now. Without this computer, I cannot pursue my studies or express myself in literature class. I also use the computer when I write editorials for the school newspaper. It is a blessing that I have the use of this computer. I challenge myself and live a busy life."

III. VISION

The Special Education Technology Task Force has the following vision for providing adequate resources to support technology for children and youth with disabilities:

- LEAs and the OSE will be partners in providing a comprehensive array of technology options for children and youth with disabilities in Oregon.
- LEAs will have the trained staff and technology resources they need to provide a basic level of technology services for children and youth with disabilities.
- Special education professionals and children and youth with disabilities will have access to up-to-date technology regardless of the location or socio-economic status of the school or of the family.
- For children with complicated needs for assistive technology, support services such as consultation, assessment and short and long term equipment loans will be available through ODE and other supporting agencies.

- The public will be aware of the need for and benefits of technology access for persons with disabilities.

IV. RECOMMENDATIONS

In this section, the SETTF advises the Office of Special Education about the area of resources. In meeting the demands of the 21st Century related to technology, students with disabilities, and school improvement, the Office of Special Education is advised to take action on the following recommendations.

A. Identify and facilitate additional funding sources that may be available for school districts and programs.

- Facilitate the development of new funding streams including federal, state, and private funding sources.
- Provide local districts with leadership and models for the development of business partnerships.
- Work with other ODE offices to increase or appropriate money for technology and technical training in special education.

B. Provide a system to facilitate the most efficient use of monetary resources for the acquisition of technology.

- Work with other ODE offices to facilitate the group purchase of technology for Oregon School Districts.
- Facilitate the availability of technology through cooperative agreement with vendors.

C. Facilitate the development of additional information resources.

- Develop a public awareness plan to inform legislators and the community about the mandates and benefits of technology and assistive technology for children and youth with disabilities.
- Provide a comprehensive resource directory to educators and families including updated information regarding assessment, equipment, funding sources for technology and training opportunities.
- Continue to facilitate production of Ed-Net and videotaped information for special education professionals, children and youth with disabilities.

D. Develop, along with other statewide agencies, a statewide system of equipment sharing to help LEAs offset the costs of specific technologies needed by individual children and youth with disabilities.

- Expand the current statewide lending library of assistive technology equipment for assessment.
- Develop a statewide long term lending library of high cost assistive technology that children and youth with disabilities may need in order to reduce the financial burden on LEAs.
- Develop a system which facilitates the sharing of equipment among educational agencies.

E. Continue to facilitate the development of a statewide network of assistive technology consultation services that will support the efforts of LEAs.

- Work with ESDs and local districts to assure the provision of services for children and youth with disabilities within the technology services provided through the Oregon Public Education Network (OPEN) project.
- Identify and support Special Education professionals who have technology expertise and the assignment to share that expertise.

F. Provide special education professionals and students with technology-based communication links with peers around the state, nation, and world.

- Work with ESDs and local districts to develop a computer network that is available to special education professionals and children and youth with disabilities for communication throughout the state.
- Create and maintain a World Wide Web Homepage and update it regularly. Routinely provide information relevant to the education of children and youth with disabilities.

RESOURCES

A. WRITTEN RESOURCES

Broadhurst, Mary and Harris, Suzy, Special Education: A Guide for Parents and Advocates, Oregon Advocacy Center, Portland, Oregon, 1992.

Nebraska Assistive Technology Project, Instructional Unit on the Use of Assistive Technology in the Classroom, Lincoln, Nebraska, 1993.

Journal of Special Education Technology, Council for Exceptional Children, Peabody College, Box 328, Vanderbilt University, Nashville, TN 37203.

RESNA Technical Assistance Project, Assistive Technology and the Individualized Education Program, RESNA, Washington, D.C. 1992.

Technology and Disability Journal, Butterworth Heinemann, 255 Wildwood Avenue, Unit B, Woburn, MA 01801, (800) 366-2655.

The Role of Technology: A Plan to Support ODE and 21st Century Schools. ODE, Salem, Oregon, 1992.

Fentress-Rowe, Diane and Thompson-Green, Ellen, The State of the State: Special Education and Technology in Oregon, 1990.

B. AGENCY RESOURCES

Oregon Advocacy Center, 620 Building, 620 SW Fifth Avenue, 5th Floor, Portland, OR 97204, (800) 452-1694.

Oregon COPE Project, 999 Locust Street NE, Salem, OR 97303, (503) 373-4744.

Oregon Technology Access Program, Douglas ESD, 1871 NE Stephens, Roseburg, OR 97470, (503) 440-4791.

Technology Access for Life Needs Program, P.O. Box 14007, Salem, OR 97309-7070.